

**CLAIMS:**

What is claimed is:

- 5 1. A method of determining the health of a computing system component, comprising:
  - generating at least one fuzzy data set associated with at least one measured metric of the computing system component, wherein the fuzzy data set defines fuzzy regions indicating different categories of the measured metric;
  - 10 generating at least one fuzzy rule set associated with the at least one measure metric, wherein the fuzzy rule set defines a relationship of the fuzzy regions of the fuzzy data set to categories of computing system component health; and
  - determining the health of the computing system component based on the at least one fuzzy data set and the at least one fuzzy rule set.
- 15 2. The method of claim 1, wherein the at least one fuzzy data set is generated by performing data mining on metric history data, wherein the metric history data includes measured values for the at least one measured metric for a predetermined period of time.
- 20 3. The method of claim 2, wherein the data mining includes performing statistical analysis of the metric history data to determine the distribution of the metric history data.
4. The method of claim 1, further comprising:
  - generating at least one second fuzzy rule set indicating a relationship of the health
  - 25 of the computing system component to the health of at least one other computing system component.

5. The method of claim 1, further comprising:  
generating an indicator of the health of the at least one computing system  
component; and  
outputting the indicator.
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6. The method of claim 5, wherein outputting the indicator includes outputting a  
graphical user interface having an indicator for each component of a computing system.
7. The method of claim 1, wherein determining the health of the computing system  
10 component based on the at least one fuzzy data set and the at least one fuzzy rule set  
includes:  
applying the at least one fuzzy rule set to metric data collected by a metric data  
collection facility; and  
determining a fuzzy data set in which the metric data is classified based on the  
15 application of the at least one fuzzy rule set.
8. The method of claim 7, wherein the at least one fuzzy rule set includes at least one  
hedge and wherein determining a fuzzy data set in which the metric data is classified  
includes applying at least one hedge algorithm associated with the at least one hedge to  
20 the metric data.
9. A computer program product in a computer readable medium for determining the  
health of a computing system component, comprising:  
first instructions for generating at least one fuzzy data set associated with at least  
25 one measured metric of the computing system component, wherein the fuzzy data set  
defines fuzzy regions indicating different categories of the measured metric;

second instructions for generating at least one fuzzy rule set associated with the at least one measure metric, wherein the fuzzy rule set defines a relationship of the fuzzy regions of the fuzzy data set to categories of computing system component health; and

third instructions for determining the health of the computing system component  
5 based on the at least one fuzzy data set and the at least one fuzzy rule set.

10. The computer program product of claim 9, wherein the at least one fuzzy data set is generated by performing data mining on metric history data, wherein the metric history data includes measured values for the at least one measured metric for a predetermined  
10 period of time.

11. The computer program product of claim 10, wherein the data mining includes performing statistical analysis of the metric history data to determine the distribution of the metric history data.  
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12. The computer program product of claim 9, further comprising:  
fourth instructions for generating at least one second fuzzy rule set indicating a relationship of the health of the computing system component to the health of at least one other computing system component.

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13. The computer program product of claim 9, further comprising:  
fourth instructions for generating an indicator of the health of the at least one computing system component; and  
fifth instructions for outputting the indicator.

14. The computer program product of claim 13, wherein the fifth instructions for outputting the indicator include instructions for outputting a graphical user interface having an indicator for each component of a computing system.
- 5 15. The computer program product of claim 9, wherein the third instructions for determining the health of the computing system component based on the at least one fuzzy data set and the at least one fuzzy rule set include:
- instructions for applying the at least one fuzzy rule set to metric data collected by a metric data collection facility; and
- 10 instructions for determining a fuzzy data set in which the metric data is classified based on the application of the at least one fuzzy rule set.
16. The computer program product of claim 15, wherein the at least one fuzzy rule set includes at least one hedge and wherein the third instructions include instructions for
- 15 applying at least one hedge algorithm associated with the at least one hedge to the metric data.
17. An apparatus for determining the health of a computing system component, comprising:
- 20 means for generating at least one fuzzy data set associated with at least one measured metric of the computing system component, wherein the fuzzy data set defines fuzzy regions indicating different categories of the measured metric;
- means for generating at least one fuzzy rule set associated with the at least one measure metric, wherein the fuzzy rule set defines a relationship of the fuzzy regions of
- 25 the fuzzy data set to categories of computing system component health; and

means for determining the health of the computing system component based on the at least one fuzzy data set and the at least one fuzzy rule set.

18. The apparatus of claim 17, wherein the at least one fuzzy data set is generated by  
5 performing data mining on metric history data, wherein the metric history data includes measured values for the at least one measured metric for a predetermined period of time.

19. The apparatus of claim 18, wherein the data mining includes performing statistical analysis of the metric history data to determine the distribution of the metric history data.

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20. The apparatus of claim 17, further comprising:  
means for generating at least one second fuzzy rule set indicating a relationship of the health of the computing system component to the health of at least one other computing system component.

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21. The apparatus of claim 17, further comprising:  
means for generating an indicator of the health of the at least one computing system component; and  
means for outputting the indicator.

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22. The apparatus of claim 21, wherein the means for outputting the indicator includes means for outputting a graphical user interface having an indicator for each component of a computing system.

25 23. The apparatus of claim 17, wherein the means for determining the health of the computing system component based on the at least one fuzzy data set and the at least one

fuzzy rule set includes:

means for applying the at least one fuzzy rule set to metric data collected by a metric data collection facility; and

5 means for determining a fuzzy data set in which the metric data is classified based on the application of the at least one fuzzy rule set.

24. The apparatus of claim 23, wherein the at least one fuzzy rule set includes at least one hedge and wherein the means for determining a fuzzy data set in which the metric data is classified includes means for applying at least one hedge algorithm associated with  
10 the at least one hedge to the metric data.